

CHAPTER 5. EFFECTS OF LAND CONVERSION ON AGRICULTURAL PRODUCTIVITY

INTRODUCTION

The conversion of agricultural land to other uses obviously diminishes the inventory of land available for crop production. However, in addition to reducing the quantity of agricultural lands, conversion impacts remaining agricultural lands in many qualitative ways. As surrounding lands are converted to suburban and urban uses, remaining farms and ranches are impacted by the fragmentation of agricultural lands, by conflicts over farming and ranching activities, by transportation challenges and by the loss of support services and infrastructure. On the other hand, conversion of agricultural land is generally driven by population growth. Population growth may also have some positive effects on agricultural operations that are positioned to take advantage of local markets. The following report examines the qualitative impacts of agricultural land conversion on remaining farms and ranches in Placer County. It also makes several recommendations that may mitigate these impacts.

FRAGMENTATION OF AGRICULTURAL LANDS

Fragmentation of agricultural lands impacts remaining farming and ranching operations in two ways. First, as farms and ranches within a predominantly agricultural region are converted to other uses, the remaining operations become surrounded by additional neighbors, increasing the potential for conflict at the urban /agriculture interface (see the discussions of conflicts over agricultural activities and transportation issues to follow). Second, fragmentation reduces parcel size, thus reducing the amount of contiguous land available for agriculture. Commodity crops (rice, cattle, grains, etc.) are particularly vulnerable to fragmentation. These crops require large contiguous blocks of land for farmers and ranchers to achieve the economies of scale necessary to hold down per unit production costs. This type of fragmentation can also impact water availability. As commercial agricultural lands are subdivided into suburban ranchettes, water use may rise due to lack of irrigation technology and expertise. Groundwater resources may also be impacted, both by decreased efficiency by ranchettes, and by increased numbers of residential wells.

Fragmentation also drives up land values. Even land that is zoned for agriculture increases in value as nearby land is developed. Such speculation prices potential farmers and ranchers out of the market. As described in an earlier report, Placer County's farmers and ranchers are aging. As conversion of agricultural land drives up land values, fewer young farmers will be able to enter the industry (either through inheritance or purchase).

CONFLICTS OVER AGRICULTURAL ACTIVITIES

Suburban residents may object to the sights, smells, and sounds associated with commercial agricultural production. Despite Placer County's right to farm ordinance, agricultural operations continue to be a source of conflict between agricultural operators and suburban residents. Conflicts arise because of the sights, sounds and smells inherent in farming and

ranching, and because of misunderstandings between farmers and the larger community. As fewer people in Placer County come from an agricultural background, the potential for these types of conflicts increases.

Examples of conflicts over agricultural activities include complaints about seasonal operations, like planting and harvesting. Because some crops have a very short window in which they must be planted or harvested, these activities may take place around the clock. If everyone surrounding a particular farm is also farming their land, such activities are generally accepted. Where an operation is adjacent to suburban development, however, neighbors may (and often do) complain about 24 hour per day operations. At certain times of the year, livestock operations may create noise, dust and substantial fly populations. Neighboring landowners who are not familiar with livestock production may find these to be nuisances. In some cases restrictions on the application of pesticides on fields adjacent to subdivisions, businesses or schools may eliminate a farmer's ability to grow particular crops in what becomes a *de facto* buffer zone. Odors from the application of fertilizer, manure, or bio-solids, as well as composting activities, can create conflicts with non-agriculture neighbors, as well. The recent controversy over nursery and composting operations in Granite Bay may be a harbinger of future conflicts over agricultural activities.

Suburban and urban land uses can also create conflicts for farmers and ranchers. Many suburban landowners in Placer County grow fruit trees and gardens. These crops, if left unmanaged, may harbor or attract pests that can damage commercially grown crops as well. For example, unmanaged apple trees in many parts of the foothills have made it nearly impossible for commercial growers to control codling moths using organic methods. The glassy-winged sharpshooter was likely introduced to Northern California from nursery products used for urban and suburban landscaping. Regulatory agencies are concerned that livestock diseases and pests may be similarly introduced.

The objections and misunderstandings cited above are directly related to a lack of knowledge regarding agricultural production among urban and suburban residents. As fewer people are directly involved in production agriculture, the production practices used on farms and ranches are increasingly foreign to many Placer County residents.

TRANSPORTATION

Conversion of agricultural land also impacts transportation options for remaining farmers and ranchers. Population growth creates additional traffic. As more people reside in traditionally agricultural regions, transportation infrastructure (roads) generally does not keep pace with the rate of traffic growth. Agricultural traffic (mostly machinery and trucks) must compete for space with commuter and residential traffic. Differences in vehicle speeds and size can create potentially dangerous situations (both for suburban residents and for equipment operators). Livestock operators are also impacted by increased traffic. In more rural settings, livestock may be driven from pasture to pasture using public and private roads. As roads become more congested, livestock producers are forced to use trucks and trailers.

Transportation facilities can also lead to increased fragmentation – even at the individual farm level. Transportation facilities are generally designed to accommodate environmental factors and/or engineering requirements. These facilities rarely, if ever, address agricultural issues.

Consequently, individual farming operations may be bisected by new transportation corridors, adding to operating expenses. The proposed routes for the Highway 65 Bypass in Lincoln and for the Placer Parkway would both fragment existing agricultural operations.

LOSS OF SUPPORT SERVICES AND INFRASTRUCTURE

A viable agricultural sector requires access to a variety of support services, including supply companies, equipment dealers, transportation providers, pesticide applicators, as well as processors and marketers. In turn, these support services require a critical mass of agricultural producers to remain viable. As agricultural land becomes fragmented by conversion to other uses (and fewer farmers and ranchers remain in an area), these support services generally move out of the area. Los Angeles and Orange Counties are an extreme example of the impact of conversion on support services and infrastructure. While agricultural production still occurs in both counties, support services are scarce because there are not enough farmers to justify a vibrant support industry. Regional examples include the loss of processing facilities for canning tomatoes and sugar beets. In recent years, tomato and sugar beet producers in the Sacramento Valley have been forced to plow crops under rather than harvest them because of the loss of processing capacity.

POSITIVE EFFECTS

Population growth, which drives the demand for converting agricultural lands to other uses, may have some positive effects on remaining agricultural operations. In Placer County, the combination of increased population and high disposable income may provide unique opportunities for niche and direct marketing. Several restaurants in western Placer County now feature locally produced foods. Farmers markets, Community Supported Agriculture (CSAs) and other direct marketing opportunities appear to be increasing, as do retail produce outlets with a local focus. Placer County has recently funded an agricultural marketing specialist to assist producers in expanding local markets. Small and medium-sized operations are likely to be in the best position to benefit from these trends. Large operations that produce bulk commodities or livestock products may have less opportunity to benefit. Furthermore, loss of support services and infrastructure make it difficult for farmers and ranchers to add value to their products – a key ingredient in accessing niche and specialty markets.

CUMULATIVE EFFECTS

Notwithstanding the positive outcomes of population growth described in the previous section, conversion of agricultural lands has an overall negative effect on remaining farms and ranches. Fragmentation, conflicts over agricultural operations, loss of transportation options and loss of support services may accelerate the decisions of remaining farmers and ranchers to leave the industry or the area. Combined with local, state and federal regulations that are detrimental to agriculture, as well as with increasing costs for imports and declining market prices, these factors make many farmers and ranchers pessimistic about the future of the industry.

CONCLUSIONS

In addition to reducing the inventory of agricultural land, conversion reduces opportunities for remaining operations. Land fragmentation increases conflicts with neighbors, reduces economies of scale, increases traffic on rural roads, and reduces the support services available to farmers and ranchers. While population growth may enhance marketing opportunities for some growers, the conversion of surrounding lands generally discourages farmers and ranchers from remaining in or entering the agricultural industry.

RECOMMENDATIONS

The impacts of conversion may be mitigated. The following recommendations may help to minimize the impacts of land conversion on remaining agricultural operations.

Land Conservation

1. Existing land conservation options include the following:
 - Williamson Act: Placer County has adopted the Williamson Act as a means of encouraging continued agricultural activities through reduced property taxes. Owners of eligible land that is not enrolled should be contacted regarding the benefits of the program.
 - Farmland Protection Zones: Also known as the “Super Williamson Act,” Farmland Protection Zones (FSZs) provide additional property tax benefits for landowners who commit to keeping their property in agriculture for at least 20 years. Additional outreach and information should be provided to the agricultural community.
 - Conservation Easements: Voluntary agricultural conservation easements can provide economic and tax benefits to landowners. Placer County and appropriate land trusts should seek funding from the federal Farmland Protection Program and the California Farmland Protection Program for agricultural easements. Local land trusts should develop agricultural programs, or local agricultural organizations should develop their own land trusts. In Marin County, the Marin Agricultural Land Trust works with agricultural producers to conserve important farm and ranch lands.
 - Wildlife Conservation Board Management Agreements: The Wildlife Conservation Board partners with landowners on habitat restoration projects that are compatible with agriculture. Information on the program should be provided to agricultural landowners throughout the County.
 - Natural Heritage Preservation Tax Credit Act of 2000: The Wildlife Conservation Board also administers a program that provides a state income tax credit of up to 55 percent for conservation easements on agricultural and habitat lands. Information should be provided to landowners regarding this program.

- Mitigation Banking: The state and federal Endangered Species Acts, as well as federal wetlands protection regulations, provide for mitigation banking on private land. Under such arrangements, landowners with particular species or habitat types can market credits to developers who need to mitigate impacts to the same species or habitats. Again, information on the program should be provided to agricultural landowners throughout the County.
2. The following emerging or potential land conservation strategies should be pursued:
- Stewardship Agreements: The state of Florida has developed a program to pay agricultural landowners for their stewardship activities (like habitat restoration and enhancement, water quality protection, etc.). A similar program has been proposed for California.
 - Grasslands Reserve Program: The 2002 Farm Bill may contain a “Grasslands Reserve Program,” which will provide funding for conservation easements on working ranches, similar to the Farmland Protection Program.
 - Agricultural Land Mitigation Program: Several counties (most notably, Yolo County) require the conversion of agricultural land to be directly mitigated through the permanent protection of an equal amount of farmland. Developers can either conserve land directly or pay into a county fund. Placer County should consider a similar policy.
 - Transfer of Development Rights: Several counties also allow agricultural landowners to transfer their development rights to other landowners in areas that are designated for development. The County should also consider such a policy.

Economic Opportunities

3. Economic viability is critical to the continued existence of agricultural operations (and agricultural land). The following existing programs address agricultural economic viability:
- County Agricultural Marketing Specialist: Placer County recently funded an agricultural marketing specialist for one year. This funding should be made permanent.
 - Long Term Agricultural Marketing Plan: With permanent funding, Placer County’s agricultural marketing specialist could develop a long term agricultural marketing plan.
 - Agricultural Tourism and Recreation: Tours and recreational opportunities can create economic opportunities for farmers and ranchers and can educate others about agriculture. The County should facilitate and support such opportunities.

4. Emerging opportunities also exist to enhance economic viability:
- Local Livestock Processing/Marketing: U.C. Cooperative Extension and the High Sierra Resource Conservation and Development Council are seeking funding to develop a local/regional livestock processing and marketing effort. The County should consider funding support for this effort.
 - Permanent Agricultural Marketing Facility: The County should consider assisting in the development of a permanent facility for agricultural producers to market their products directly to the consumer.
 - Cooperative Processing and Marketing Ventures: Small producers would benefit from the development of cooperatively owned processing equipment/facilities and marketing ventures. The County should fund feasibility studies for such efforts.

Public Policy Involvement

5. The following are policy areas in which Placer County and Agricultural Commission can play an active or supporting role in dealing with the impacts of land conversion on local agricultural operations:
- Right to Farm: The County should continue to enforce its right-to-farm ordinance and to ensure that the ordinance remains part of the real estate disclosure process.
 - Agricultural Commission: The Agricultural Commission must continue to play a strong role in reviewing land conversion. Furthermore, the commission must continue to be a forum for resolving right-to-farm conflicts and for discussing the impacts of conversion.
 - Community Education: The County should support efforts to provide educational programs to children and adults regarding agricultural production and Placer County products. Strategic partnerships should be developed with the California Foundation for Agriculture in the Classroom, statewide commodity organizations, local agricultural groups, local schools, and others.